



NEWISYS®
A SANMINA-SCI COMPANY

The NA-1400 Network Attached Storage Device

Release Notes

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Product Documentation

Document	Purpose
<i>NA-1400 Network Attached Storage Device Release Notes</i>	Information about system requirements, supported versions and platforms, and known issues and work-arounds.
<i>Newisys NA-1400 Network Attached Storage Device Quick Start Guide</i>	Information about how to set up and configure the NA-1400, how to find it on your network, and how to access the Web-based administrative tool.
<i>NA-1400 Network Attached Storage Device User Guide</i>	Instructions for the installation and configuration of the NA-1400, how to manage settings, how to configure storage settings and advanced settings, and how to use the Web-based administrative tool.
<i>NA-1400 Safety and Regulatory Information</i>	Safety precautions, regulatory notices, and end user system agreements for the product.

Supported Hard Disk Drives

The NA-1400 supports the following SATA hard disk drives.

HDD Capacity	RPM	Newisys AVL Part #	HDD Mfr.	Mfr Model #	Mfr Part Numbers	Firmware Level
250GB	7200	S05259	Seagate	ST3250823AS	Not Available	3.AAD
250GB	7200	LFS06486	Seagate	ST3250824AS ST3250624AS	9BD133-304, 9BD133-303, 9BD133-301, 9BD143-304, 9BD143-303, 9BD143-301	3.AAD thru 3.AAJ
400GB	7200	LFS05266	Seagate	ST3400833AS ST3400633AS	9BD135-303, 9BD135-301, 9BD145-303, 9BD145-301	3.AAD thru 3.AAJ
500GB	7200	LFS05919	Seagate	ST3500841AS ST3500641AS	9BD138-304, 9BD138-303, 9BD138-301, 9BD148-304, 9BD148-303, 9BD148-301	3.AAD thru 3.AAJ

Supported Media Devices

The USB (Universal Serial Bus) ports on the front of the NA-1400 are intended for use with mass storage devices only. Mass storage devices are things such as USB sticks, memory cards, or memory sticks. The USB ports are not intended to handle the specific requirements of cameras or other such devices. To store photos or similar media, first download the media to your computer, then store the media in the NA-1400.

USB Device	Name and/or Description
Viking InterWorks	256MB USB flash drive
Viking InterWorks	512MB USB flash drive
Hammer Storage	Desk Hammer Express external USB 80GB hard drive, HSE308072P
SanDisk	Cruzer Mini 256MB USB flash drive
SanDisk	Cruzer Micro 1.0 GB USB flash drive

Supported Browser Versions

The Web-based administrative tool is accessible via:

- Microsoft Internet Explorer 5.0 or later.
- Mozilla Firefox 1.0 or later.

Components

Component	Quantity
NA-1400	1
External power supply	1
Power cord (Units ship without power cords in some countries.)	1
Hard disk drive carrier (and HDD option)	4
Discovery CD	1

Features

Features of the NA-1400	
Storage Capacity	Four pre-configured models have capacity totals of 1.0 TB, 1.6 TB and 2.0 TB. The RAID level selected determines available capacity.
Processor	Intel® Xscale® 80219 600 Processor
Memory	Single 256MB DDR SDRAM w/ECC
Cache	32KB data cache
Disk Configuration	RAID0, RAID1, RAID5, and Linear (single large volume, no striping) ¹
Supported Hosts	Up to 20 with base memory configuration
Client OS Support	Microsoft® Windows® 9.X, Windows ME, Windows 2000, Windows 2000 Server, Windows XP Professional, Windows XP Home Edition, RedHat®, Mandrake®, SUSE®.
Supported File Systems	SMB, CIFS, HTTP, CIM Client, Anonymous FTP
Supported Media Devices	USB ports support up to two USB 2.0-compliant memory and storage devices at the same time; downward compatible to USB 1.1
Connectivity	Two 1GB Ethernet RJ45 connectors on rear panel Two USB 2.0 connectors on front panel
Configurations and Supported Drives	NA-1400 1.0TB (4 x 250GB SATA I drives, pre-configured)
	NA-1400 1.6TB (4 x 400GB SATA I drives, pre-configured)
	NA-1400 2.0TB (4 x 500GB SATA I drives, pre-configured)
Operating System	Linux-based appliance operating system User-friendly GUI for configuration and management activities
	Standard features
	External USB storage disk
	Access control list
	File sharing
System monitoring and reporting	
Web-based user interface	

¹ In Linear RAID, chunks are allocated sequentially. This offers no performance benefit or redundancy and decreases reliability. If any drive fails, the entire array is unusable. Capacity is the total of all disks.

Features of the NA-1400			
		Journaling file system	
Dimensions	NA-1400 1TB and NA-1400 2TB		
	Height	220 mm (8.7 in)	
	Width	170 mm (7.2 in)	
	Depth	260 mm (10.2 in)	
	Weight	3.6 kg (7.9 lbs) for open bay 6.8 kg (14.95 lbs) with 4 hard disk drives and 4 hard disk drive carriers	
External power supply	All configurations		
	Output	19V, 6.3A, 120W maximum	
	Input	90 – 264VAC, 47 – 62 Hz 3.2A @ 115VAC 1.7A @ 230VAC	
Environmental	All configurations		
	FCC Rating	Class B	
	Temperature	Operating	0 to 35° C
		Packaged	-40 to 65° C
	Humidity Range	Operating	8% to 80% RH non-condensing
		Packaged	5% to 95% RH non-condensing
	Altitude	Operating	Up to 3,048 m (10,000 ft)
		Packaged	Up to 10,600 m (35,000 ft)
	Mechanical Vibration	Operating	0.25G at 5Hz to 500Hz in all axes
		Non-operating	1.0G at 5Hz to 500Hz in all axes
		Packaged	ISTA Random Vibration specification
	Mechanical Shock	Operating	5G, 11msec duration, ½ sine, all 6 faces
		Non-operating	30G, 11msec duration, ½ sine, all 6 faces
		Packaged	ISTA Impact specification
	ESD	15,000V human body model	

Important Points

Firmware Updates

Firmware updates will be available from the reseller from whom you purchased your NA-1400.

Hard Disk Drives, Damaged

Ensure that all hard disk drives are in good condition. A damaged hard disk drive can hang the NA-1400.

Hostname Default

If the network is configured for DHCP, but no DHCP is available, the hostname defaults to localhost, rather than to HOSTxxxxxxx, where xxxxxxxx represent the last 8 digits of the MAC address.

Limit Changes to HDD Carriers and Location

The NA-1400 works best and most reliability if you limit changes such as removal and replacement of an HDD carrier, change in location, changes to settings, and so on.

Do not remove a hard disk drive (HDD) carrier unless you must replace a faulty disk. Label the carriers and the slots before you power on the system. If the NA-1400 is off, you can remove more than one HDD carrier, but you must reinstall them in exactly the same positions they previously occupied. Otherwise, the unit might not boot and/or data might be lost. If the unit is on and you have a RAID volume, do not remove more than one HDD carrier at a time. A RAID volume handles only a single drive removal.

Online Help and Inactivity Timer

The online help pages are linked to the inactivity timer. If a help page is open for longer than approximately five minutes without mouse or keyboard activity, the system will log off the user.

Power Switch Functions

See the *NA-1400 Users Guide*, available via the Newisys public Web site below, for details about power switch and LED functions. To access the site, click the link below and scroll down the page. Then click the link to the *NA-1400 Users Guide*.

http://www.newisys.com/products/na-1400_user_guide.pdf

The table below contains a summary of the functions.

Function	Steps
Power on ²	Press the power switch 1 time. (Do not press and hold the power switch.)
Power off	When the power up is complete, press the power switch 1 time. (Do not press and hold the power switch.) ³
Reset network settings	Press the power switch 1 time to power on. When the power up is complete, quickly press and release the power switch two times. The IP restore process begins and completes in a few seconds. Quickly press and release the power button one time to power down the NA-1400. When the power down is complete, press the power switch one time to power up with the correct network settings. Note: This also resets the passwords to secret and admin . To reset or synchronize the Web interface and root passwords, in the Web interface go to Maintenance, Administrator , and check the box beside Synchronize with root password .
System Level Restore	With power off, insert the USB device that contains the saved data into one of the USB ports. Press the power switch 1 time to power on. After about 2 minutes, the status LED blinks 2 times. Immediately press the power switch 1 time. The status LED blinks 2 times. This indicates that the data restore will begin.

System Partition, Corrupted

You can restore data via the USB Save/Restore procedure, unless the system partition is corrupted. In that case, attempts to restore data via the USB Save/Restore procedure will fail.

² Total time to power on after you press the power switch can be 10 minutes for the first power on. Subsequent power ons can take up to four minutes. Blue LEDs on the hard disk drive carriers flicker during power on and illuminate during data read and write.

³ A hard power off is not recommended. If it becomes necessary, press and hold the power switch.

Updates

You must have Web access from the NA-1400 in order to update it. You cannot “point” at a file on the local network.

Known Issues

Ethernet Port Use

If one Ethernet cable is attached to one of the Ethernet ports on the back of the NA-1400 and you attach a second Ethernet cable to the other Ethernet port, the NA-1400 will not automatically enable the second port. Open the Web-based Admin UI to enable the second port.

Ethernet port 0 and Ethernet port 1 both default to this IP address: 192.168.0.100.

Hard Disk Drives, Deactivation, Reactivation

On rare occasions, deactivation and reactivation of a drive can hang the NA-1400. To remedy this, reboot the NA-1400.

Adding a User

If a user is added with a name that contains one of the illegal, special characters, an error message displays to indicate that the data is invalid. In spite of this error message, the user is added, but no description is added. (See the NA-1400 User Guide for a complete list of illegal special characters.)

RAID, Degraded

Since system partitions are mirrored, a degraded system RAID will not bring down the NA-1400. If the user partitions are in a RAID 1 or RAID 5 configuration, a degraded user RAID will not corrupt user data. If the system reports that a RAID is degraded, the problem may be remedied by adding the partition back to the NA-1400 as a spare. It may be necessary to first delete the unrecoverable RAID that is still on the drive that was removed from the RAID. The system will fail to operate only if all four system partitions have been corrupted.

Drives/partitions may be removed from a RAID set if 1) the drive has failed or is failing, or 2) if the system was powered off abruptly (drives in RAID were out of synch when power loss occurred).

Linux System Clock is Fast by 15 Minutes per Day

The system clock maintained by the Linux operating system runs fast approximately 15 minutes per day. This may cause timestamps of new or modified file to be incorrect which may lead to issues with backup utilities, file synchronization applications, etc. The defect has been root caused and fixed. An update will soon be available.

Linux System Clock is Incorrectly Set and RTC is Corrupted

The system clock maintained by the Linux operating system is initialized at boot up to the time of the last power off. When the NA-1400 is shutdown, Linux overwrites the correct time in the RTC with the incorrect time. This is a software defect that has been root caused and fixed. An update will soon be available.

Connections Lost

Under heavy load from multiple clients, the NA-1400 may drop a connection. In general, the NA-1400 can handle up to 20 clients. However, under heavy load, connections may be lost with as few as 4 clients. In most cases, the client can re-connect. If the issue persists, reboot the NA-1400.

Technical Support

If you have questions, concerns, or need assistance, refer to the Technical Support contact information provided by your system supplier.

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